

ABSTRACT

The present invention provides an internal antenna for wireless devices comprising a ground plane and a planar loop antenna. The shorted loop antenna is provided with a gap and operates at a quarter wavelength. The compact single
5 feed dual or multi band internal antenna is realized either through composite assembly of an active outer and inner radiating elements or by a selective combination of an active outer radiating element and a parasitic inner radiating element. The inner radiating element of the proposed invention is completely encompassed within the outer radiating element. The resonant tuning of the
10 internal antenna is accomplished by means of the matching stub and capacitive loading plates with the matching stubs being entirely internal to the outer radiating element.

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